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Papal Nov. 1825.

Inaugural Essay
on
Intermittent Fever
by
Silas H. Beans
of
Becks County
Pennsylvania.

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Intermittent Fever is defined by Dr. Thomas to consist of a succession of paroxysms between each of which there is a distinct and perfect intermission from febrile symptoms or an apyrexial period.

Different names have been given to this fever according to the distance of time observed between the periods of its return.

When it comes on within the space of every twenty four hours and for the most part in the morning Dr. Cullen says always in the morning, but this from observation is erroneous, it is called a quotidian. When it returns every other day or every forty eight hours, for the most part at noon it is called a tertian.

When similar paroxysms return every seventy two hours and mostly in the afternoon, it is called a quartan. That under the tertian type is the most apt to prevail

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in the Spring and is the most frequent form of the disease. The quartan is the most obstinate and dangerous being chiefly prevalent in Autumn.

Of the quotidian, tertian and quartan intermittents there are several varieties and forms, to which may be added several others of less frequency.

Hippocrates tells of quintans, that return at the end of ninety six hours. Van Swieten mentions a case of a quartan turning to a quintan. Dr. Fordyce has seen two or three cases of septans. In all these the patients contrary to the generally received opinion were frequently attacked at night.

These intermittents vary again in their shape. We see the anticipating coming on an hour or two sooner. The postponing an hour or two later. The anticipating intermittents show the disease to be more

violent than the prostrating. The former if not soon checked will assume the remittent type. the latter yields very kindly to our remedies.

Some say that paroxysms do not come on at night but that they are prevented by sleep. This idea is erroneous as patients are sometimes awakened by the coming on of the rigors.

Quotidian, Tertian and Quartan vary in other respects having sometimes instead of one, two or three paroxysms on the same day. They are then called duplicated or triplicated. In the tertian and quartan there is still an intermission without fever, but in the quotidian this distinction is not to be seen. In the tertian it can most commonly be seen the best. When the paroxysms come on every day and the alternate paroxysms

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are similar or the one on the intermediate day is slight it is called a double tertian.

When there are two paroxysms on the regular days and one slight on the intermediate day it is called a triple tertian.

When there are two paroxysms on the regular days and none on the intermediate it is called a duplicated tertian.

Suppose in a quartan there is a severe paroxysm on the fixed days and a slight one on one of the intermediate days it is termed a double quartan and when there is a slight paroxysm on both intermediate days it is named duplicated quartan.

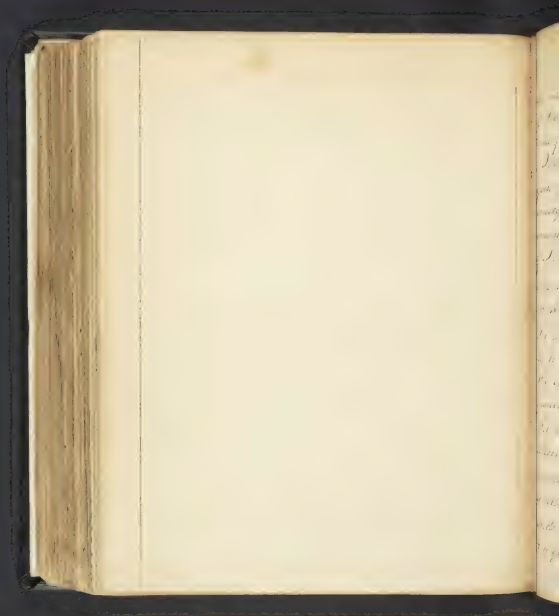
The duplicated quartans with three paroxysms every fourth day and none on the intermediate days. Quotidian, Tertians and Quartans are also either true or spurious. True when the paroxysm is completed within twelve hours.

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spontaneous when retracted beyond that time. Intermitents are also divided into universal and partial. Universal when the whole system, ~~viz~~ ^{viz} partial when a part is affected. Some make a number of distinctions founded on symptoms or the disease with which they are blended as Stagnative-Colic-Energetic-Rheumatic and Paralytic Intermitents.

Intermitents have a tendency to become remittents of which the quotidian is the most weak-the tertian next and the quartan the least. Quotidians and the more protracted types never change in the conditions according to Van Swieten. It may likewise be remarked that the quotidian has the shortest cold but the longest hot fit and the whole paroxysm is the longest. The tertian has a longer cold but a shorter hot fit and



In which, purgism shorter than that
of the medicine. Medicine the longest
and yet the shortest medicine.

Medicine having the longest, purgism
produces most excitement and is
consequently more apt to assume the
continued & violent form. Dr. Gault
of London says such was known the
old stage to last fifteen hours but its
most commonly lasts two or three. In
the quotidian the purgism is given
with other in such quick succession and
the excitement is so great that it re-
quires every means in the reach of
the physician to arrest its progress—
otherwise he will have a continued or
violent fever to manage either of which
is much more distressing to the patient
and alarming to the physician. A quotidian
& a quotidian first becomes a quotidian



before it runs into the continent: This
is a regular grade and a quotidian
before it assumes the continued type
gradually loses its catit stage: but the
hot stage increases, and hence we see
more excretion and during the very
critical period the system becomes very
irritable. When these fevers arise in the
spring of the year they are called vernal,
and when in autumn they are known
by the name of autumnal.

Intermittents often prove obstinate, and
are of long duration so as to become very
inconspicuous to patients and often give rise
to other chronic complaints—such more or
lessably anasarca swellings and en-
largement of the liver or spleen.

It seems to be, very generally, ac-
knowledged that malarious miasmata
or the effluvia arising from stagnation



water or marshy grounds whose action
upon the blood is the most frequent
cause of this fever.

It is affected by
Dr. Keen to be very considerably the
cause of intermittent fevers in all their
supposed forms. In admitting it to be
a fact we are led at the same time to
conclude that malarious miasmata must
be found to a considerable distance since
it is found that miasms residing constantly
by in the most healthy part of India
and far removed from marshes are some-
times attacked by them.

As respects the influence of the
heavenly bodies on this disease, I shall
leave for Dr. Keen to explain.

It is worthy your and great fatigue long
watching, endurance gives much as
very, ability exposure to cold lying in



burnt, seems a bed, burning never, then
a calm must be the danger, as in these
the suspension of some long accented and
moderation the weapons of our nature have
been ranked among the exciting causes
of intermittents.

One peculiarity in this
fever is its great susceptibility of renewal
from very slight causes, as from the
revivalence of an instantly excited, or from
the recrudescence of the original excitability.

It likewise appears a more or less in-
crease in the body, which favors the
recurrence of the complaint. In this cir-
cumstance intermittents differ from other
fevers.

A certain kinetology of the mori-
mate cause of intermittent fever has
not yet been ascertained, but a deranged
state of the stomach and nervous



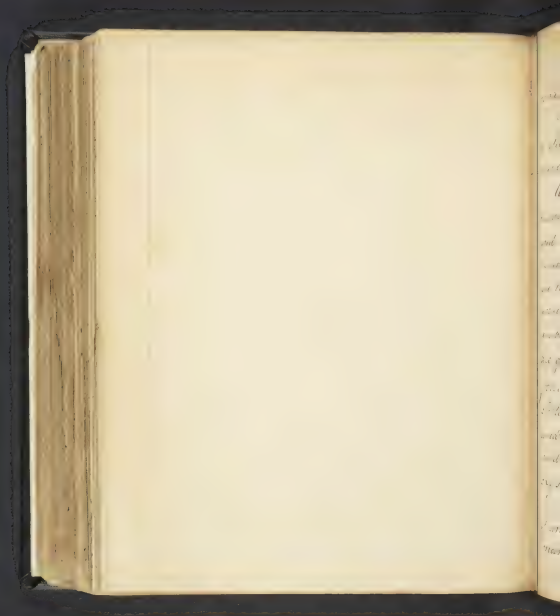
is that which is most generally described.

Each paroxysm of an intermittent fever is divided into three different stages a first. The cold stage commences with loss of a sense of activity and sluggishness in motion frequent yawning and drowsiness and an aversion to food. The face becomes pale the patient shivers the pulsation of every external part is diminished and the skin over the whole body appears contracted as if cold had been applied to it. As long as the patient feels very cold and universal rigors come on the respiration is small frequent and anxious; the urine is almost colorless, sensibility is greatly impaired and the pulse is small frequent and often irregular.

These symptoms abiding after a short time the second stage commences with



an increase of heat in the whole body
swells of the face, all parts of the skin
thick, heat in the head, back, liver or
nerves, and sometimes shivering in the
limbs, anxiety and restlessness, the respira-
tion is fuller and more free but still
perverse; the tongue furred and the pulse
has become regular, hard and full. If
the attack has been very severe, then re-
laxation will arise, when these
symptoms have continued for some time,
a profuse sweat out on the forehead
and by degrees becomes a sweat and this
at length extends over the whole body.
As this sweat continues to flow the heat
of the body abates, the thirst goes, the mind
becomes a sediment, respiration is free
and full, and most of the functions are
restored to their ordinary state; the patient
is however left in a weak and precarious



condition. It constitutes the third stage.

After a ^{brief} ~~suicidic~~ interval according to the species, a fresh paroxysm commences in the manner before described.

When the paroxysms are of short duration, regular in their recurrence ~~and~~ and leave the intervals quiescent we may expect a speedy recovery; but when they are long, violent and attended with much anxiety and delirium the event may be doubtful. Other unfavourable symptoms are great prostration of strength, vertigo, forced exertions, the presence of dysentery, cholera morbus, enlargement of the liver, and spleen indicating dropsy or jaundice and convulsions occurring during the paroxysm, succeeded by coma.

Dissections of those who have died of an intermittent show a morbid state of many of the viscera of the thorax and



abdomen, but the liver and organs concerned in formation of bile as likewise the spleen and mesentery, are those which are usually most affected.

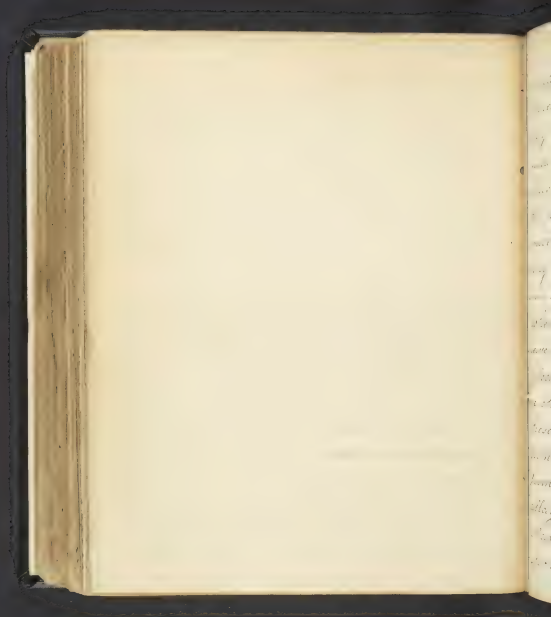
Having finished the observations on the theoretical part of fever, I am now to consider the cure of intermittent.

In the treatment of intermittents, fever a beaten path is before me. Thirdly, for prophylaxis, the remedies under a timely administration are almost invariably competent to effect a cure.

This naturally presents itself to us under two heads. First. The treatment during the paroxysm. Secondly. The treatment during the interval or apyrexia. Following the indications pointed out by the disease, we sedulously imitate nature in our treatment and endeavour to excite



prescription when called to a patient
in the cold stage of an intermittent.
Many practitioners are very much at-
tached to opium in the cold stage.
This was originally introduced into prac-
tice by Dr. Sydenham who gave it in the form
of Laudanum. Thirty drops would generally
arrest the progress of the paroxysm. The
dose of Dr. Sydenham is often sufficient, but
sometimes it is necessary to increase it
to two or three times the quantity. The im-
mediate effects are to quicken the pulse and to
diffuse a gentle warmth and moisture over the
whole body and to relieve the pain in the head,
back and extremities. When the cold stage is
very violent and menacing dangerous conse-
quences an emetic is an excellent remedy and
generally affords relief during its operation.
During the hot stage
the indications are to remove the



movements which may be set up and to
induce perspiration. The circulation which
may arise from bile in the stomach is
most generally, unobstructed by vomiting
which ought to be avoided, by allowing
the patient to drink plentifully of warm
water and was calculated to induce vom-
iting in a slight degree such as the influ-
ence of the Emetics. Depositions for
which this is not the case I never con-
sider it a safe practice, especially in
febrile habits as well, they might
be the consequence. In a majority of
these cases great benefit will be derived
from taking eight or ten ounces of blood
from the arm, which seldom fails to
allay the pain in the head and by
slowing the extreme vessels a gentle per-
spiration is brought on—And it not

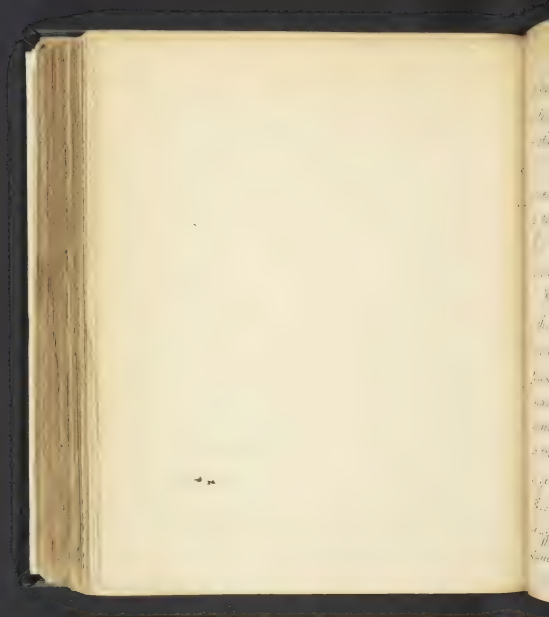


unfrequently happens, that by the loss
of some blood pushing is increased with
safety.

I come now to the stage in which
anapnoeotics present themselves. The
European writers employ James' Powder
but in this country the animal emul-
sions are used especially the Sarsaparilla
Emulsion. *Aristolochia Serpentaria* makes
an excellent vehicle in this stage of the
fever. Many Physicians especially
those of warm climates employ quinine
in the hot stage. To Dr. Lind we are
indebted for this practice. He gave it in
the form of *Tinctum cinchonae*
with *Uncia Menthae*. thirty or forty drops
3d & 4th *Uncia Menthae*. He observes that a
solution of the nuxomgen takes place—
that the system is prepared for the



subsequent employment of the bath
and also prevents congestion of the
viscera with its consequences. That this
practice will answer in ordinary cases
I have no doubt, but sometimes the fever
has more of an inflammatory aspect
and demands other remedies. But this state
can be determined by corresponding sym-
ptoms. There is a strong and full pulse
with a flushed countenance, laborious
respiration, local pain especially in the
head and side. The Spiritus Mindereri
with Laudanum answers a very good
purpose in this stage. But the bowels is
not to be spared and the application of a
blister to the side ought not to be omitted.
The alimentary canal should be freely opened.
For this purpose the mercurial purges will
be found to answer very well—



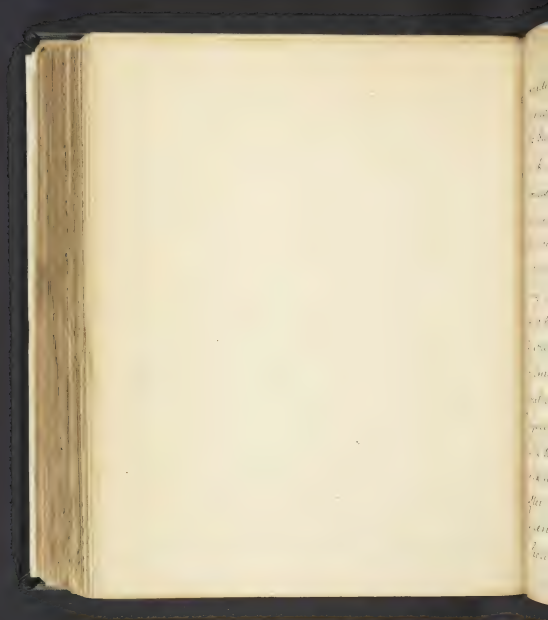
Mild diaphoretics are at the same time
to be employed as the *Quintess. Minus*
or the antimonials.

I have now arrived at the second
part of the treatment or *Stasis* which
is proper in the interval or *apexia*.
This during the *apexia* or interval may
be arranged under two heads.

That to be employed during the time
of the intermission and that in the ap-
exia of the *paroxysm* - To meet the
first indication when it arises from
marsh miasmata the patient is to be
removed to some elevated situation or
to the sea shore which generally produces
a very salutary effect agreeably to Dr.
Husack: But as the majority of the persons
so affected are either so situated or so circum-
stances that a removal would be undesirable



we must therefore have recourse to
medicine alone. To meet this indication
I do not know that there is any medi-
cine to be compared to the Peruvian
bark and its extracts, the sulphate
of quinine. The cinchonæ oblongifolia
lanceifolia and cordifolia seem to be the
three species now in greatest reputation
of these the red is to be preferred. It was
formerly supposed that the fever should
be allowed to progress for sometime, before
the bark was given, that the morbid matter
might be expelled. This was the
opinion of Boerhaave, Van Swieten, and
Sydenham. At the present time prac-
titioners are pretty generally agreed that
the earlier it is given the more speedily is
the cure accomplished. Some have main-
tained that it is not necessary to attend to the



condition of the alimentary canal or
prepare the system for the reception of
the bark. This however is not the case nor
is it the common opinion among prac-
titioners but as a general rule we should
evacuate the stomach by, vomiting and
the intestines by, purging. The bark may
and very often does succeed itself without
any previous evacuations. but in general
it is hazardous to proceed on this plan.

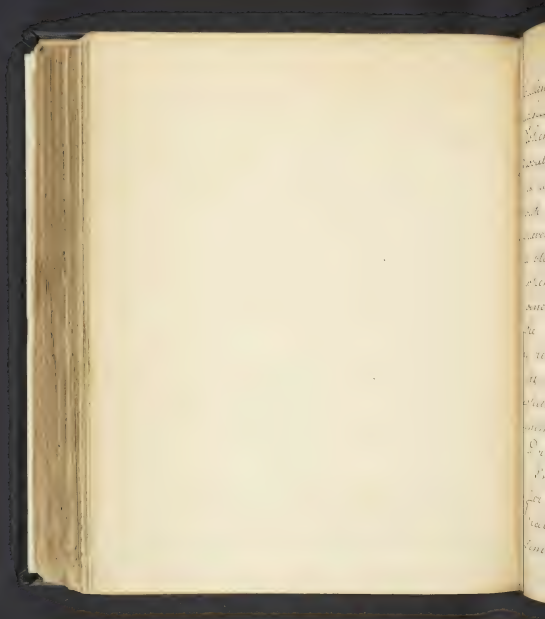
By evacuating the alimentary canal both
by Emetics and Purges, all irritation and
foul accumulations are removed and the
system rendered infinitely more suscep-
tible to the operation of other medicine. It is
not always necessary to give a cathartic
after taking an emetic as it very frequently
opens the bowels in the course of a few
hours. When this is not the case a purge



should be given and for the most part
some saline cathartic answers very well.
-Emetics seems to be superseded in some
measure by the use of purges. In this case
I would prefer the old-fashioned cathartics
Calomel and Jalap. Besides these evac-
uants venesection is always demanded
in inflammatory cases and without
it the bark is usually rejected by the
invariable state of the stomach or if retained
aggravates the disease.

The bark ought never to be administered
until the system is thus prepared for its
reception and in this manner the
Cinchona would soon regain its name—
"A. regine for the intermittens."

Sometimes intermittents are accom-
panied with visceral obstruction. In such
cases the bark has been condemned by



Cullen. I think the question may be easily adjusted by the following rules.

When there is no inflammatory action I would not hesitate to use the bark; but when there is much pain in the side with an active pulse, it is eminently mischievous. In this case we are directed to bleed to blister and a slight salivation and when there is much fever and pain venesection is often to be added to the salivation. This practice is highly recommended by professor Chapman. At one time it was much disputed whether the bark should be given immediately before a paroxysm.

Dr. Cullen thought it should.

In this I think he was wrong for instead of preventing the paroxysm it increased the fever—some have gone still farther among



where is Dr. Clark who administered
it ^{during} the whole of a puerperium. This I have
never seen tried but should judge it
to be a dangerous practice. It is now
a rule among the ablest physicians
there, whenever there is the slightest indi-
cation of a puerperium, to administer the
Elixir. It is given in substance with
Milk, wine or mixt of licorice which in-
completely conceals its taste. The dose is one
or two drachms repeated as often as the
stomach will bear it until an emesis is
taken during the interval with addition
of some aromatic as the Sassafras &c.
In the best Indies they are in the habit
of giving much larger doses, and it is said
to have been successful when ineffectual
in the usual manner. Some stomachs will
not bear the bark in substance or the tincture



It will take 12. To obtain this it may
be given in infusion or decoction with
some alexiphobic. The Scurvian answers
very well, by rendering the bark more
effusions and the taste more agreeable.

The Scurvian of quinine has very
recently become a popular remedy.
It is undoubtedly equal to bark in action
in point of efficacy, to the Cinchona.
The dose is about three grains every two
hours until eight or ten grains be
taken which if administered during
the interval, will be found generally
to arrest the progress of the fever. Believ-
ing it to be virtually the same as the
Cinchona, the same observation holds
good as to the administration of the
medicine. There are many other modes
of using the bark viz Oyster Bark and



the barkjackets each of which has in its turn proved beneficial though very much neglected in practice.

The wild Cherry, Black alder, Dogwood, and the Oak, all have at one time or another been highly extolled, and should not be lost sight of as they are the products of our own country and may be employed in cases of emergency.

The doses are pretty much the same as those of the Peruvian bark. The Cupri Sulphas or blue vitriol has been very highly recommended by Dr. Monro. The following formula is recommended by the medical Journal -

\mathcal{R} Sulph Cupri 10 gr. Cinchona 3ij formed into XVI pills four of which are to be taken during the day and to be continued for a week or two. The different preparations of iron are of great benefit.

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The sulphate of alumine is highly esteemed
by Dr. Cullen. Arsenic has been considered
a famous remedy in many periodical
diseases. but more particularly in inter-
mittent fever-

